IEG Spring Board Development Seminar

Why “Stewardship of Place” Matters

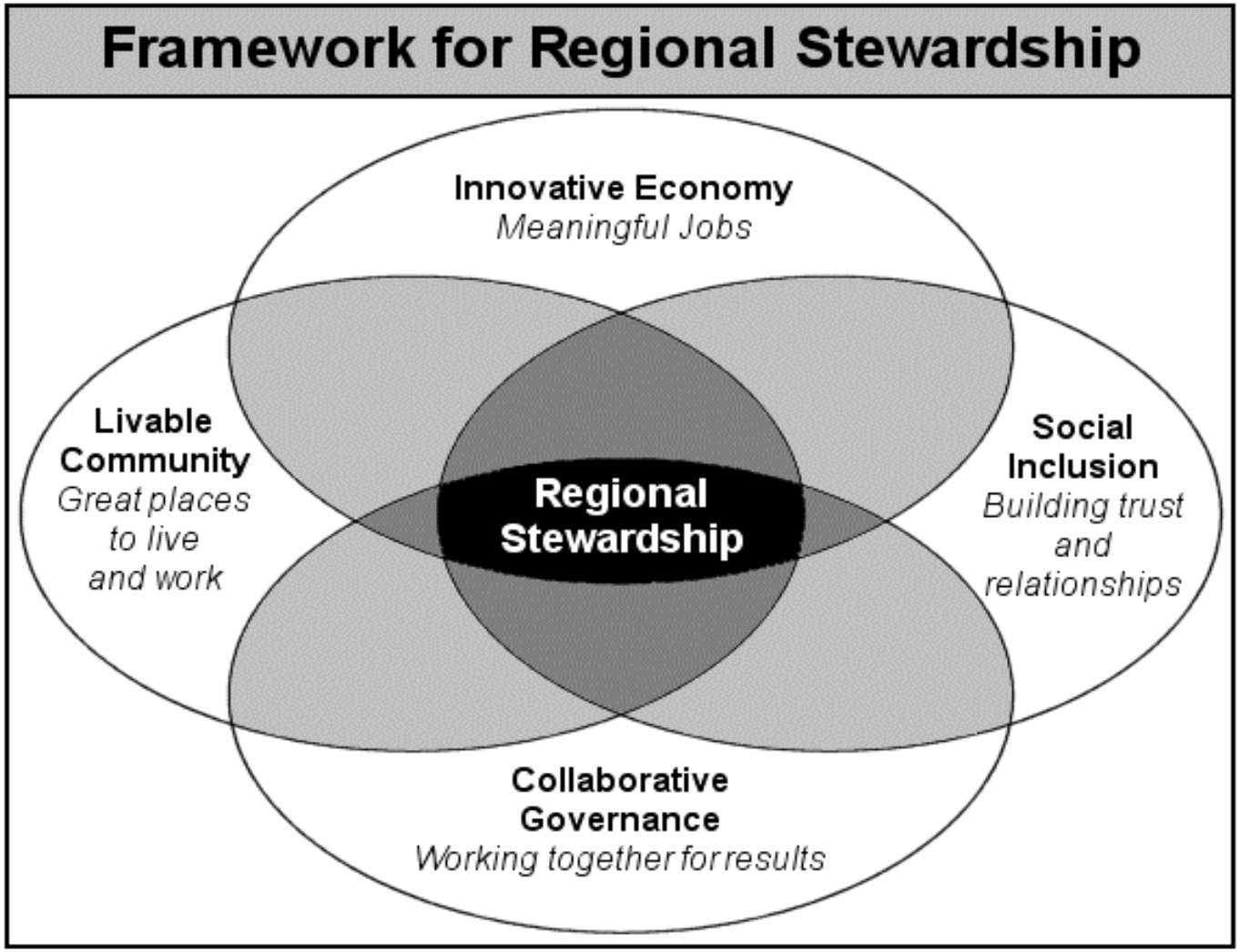
Doug Henton

President, Collaborative Economics

Sunday, May 22, 2005

4:45 p.m.

Integrating Regional Conversations



Finding Stewards of Place

New Leadership Model

- Regional Stewardship: commitment to place
- Traditional Leadership: commitment to an issue/cause
- Stewards understand the interdependence between the economy, society, and environment
- Regional stewardship is both an individual and a regional capacity

New Roles for Universities

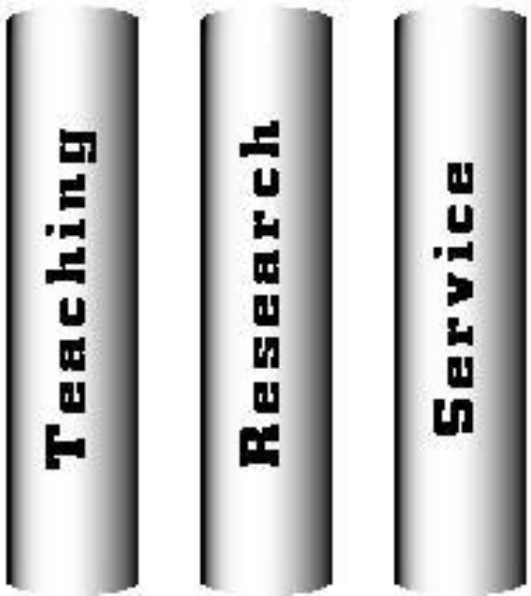
- New expectations for university/college contributions to the regional economy—roles in all four conversations
- New expectations that universities/colleges step forward as “stewards of place” as they are uniquely situated—embedded—with a sense of place

Universities in the Knowledge Economy

Universities in the Knowledge Economy

FROM → TO

Ivory Tower
3 pillars



Stewards of Place
3 pillars

New Responses Required

Overhaul University/College Pillars

- From Teaching to Learning
- From Research to Innovation
- From Service to Engagement

New Sweepstakes

The list of America's top 50 universities will change profoundly in this century based on 3 issues:

Location, programs, collaboration

Eugene Trani, President, Virginia Commonwealth University

Summary

- Communities—Four conversations
- Higher Education—Plays in all four conversations and can help “connect the dots”
- Changing Economy—Requires new responses and new leadership models

IEG Spring Board Development Seminar

Why Good Governance Matters, Part 2 –
Postsecondary Education's Role as Stewards of Place

Monday, May 23, 2005
10:30 a.m.

Tools and Insights for Universities Called to Regional Stewardship

June 21, 2004

Foreword

In recent years, much attention has been focused on the emergence of the knowledge economy and the nation's aging, migrating population, but our communities and public institutions—including higher education—are just coming to terms with these trends. The combination of an economy and a population in transition promise significant—even dramatic—changes in how we think about questions of local and regional planning and development.

One such change is the emergence of the idea that *place matters*, that a mobile population able to live and do business virtually anywhere will focus on the viability and vitality of where they live and work. From this idea has grown the concept of regional stewardship, which emphasizes the boundary-crossing required to build sustainable places and focuses on the imperatives of an innovative economy, livable communities, collaborative governance, and social inclusion. It is a concept that is gaining traction nationwide, as communities come to the realization that their greatest opportunities and most daunting tasks cross geographic, political, and economic lines. At the same time, however, it is a concept that demands sustained commitment and dialogue from a wide range of leaders, including presidents and chancellors of colleges and universities.

State colleges and universities, as institutions with a rich history of commitment to the places where they exist, offer tremendous potential as regional stewards. Embedding a regional orientation into daily campus life represents a significant challenge for even the most committed institution, however, especially when existing incentive structures and funding models place engagement and stewardship at the margins. Additionally, the absence of a supportive public policy environment can hinder campus efforts to have a more systematic focus on regional stewardship.

A shared desire to address the opportunities and challenges of higher education and regional stewardship has brought our organizations together to create Making Place Matter, a two-year initiative dedicated to advancing state colleges and universities as regional stewards. The primary goal of the project is to provide tools and practical insights to regional and campus leaders as they seek to build and deepen their relationships to create more vital and viable places. This collaboration builds on the framework established by the Alliance for Regional Stewardship through their monograph series and leadership academies, the work done by AASCU's Task Force on Public Engagement, articulated in *Stepping Forward as Stewards of Place*, and the contributions of the National Center for Higher Education Management Systems via the policy audit.

This workbook provides the conceptual foundation for the initiative. The monograph thoughtfully articulates the external forces that are driving the

emerging stewardship imperatives for state colleges and universities, and identifies the expectations that lie ahead. Complementing the monograph is a diagnostic audit for institutional, regional, and state stakeholders to use in identifying key relationships, priorities, and stumbling blocks. This tool will be tested and refined through campus-based demonstration projects, but we hope that it will be useful to colleges and universities and their regional partners nationwide.

Our collaboration is the fruit of many hands, and some acknowledgments are in order. First, we thank the W.K. Kellogg Foundation, particularly Gail McClure, whose generous support has made our efforts possible. Additionally, we credit Mary Jo Waits of the Morrison Institute for Public Policy at Arizona State University for her thoughtful contributions as primary author of the monograph and John Melville of Collaborative Economics for his central role in organizing the stewardship audit; President Jim Votruba of Northern Kentucky University and members of the AASCU Task Force on Public Engagement for encouraging further work in this area; and our staffs, whose diligence and attention to detail have kept us focused and moving forward.

John Parr
President
Alliance for Regional Stewardship

Constantine W. (Deno) Curris
President
American Association of State Colleges and Universities

Dennis Jones
President
National Center for Higher Education Management Systems

Introduction

State colleges and universities and their regional partners already work together on a number of different levels, but recognize the need to broaden and deepen their relationships to address a range of emerging issues. The unfolding of a knowledge- and service-based economy, combined with an aging, diversifying, migrating population, require greater emphasis on the places where people live and work.

In a world increasingly driven by brain power, the focus is shifting from inherited assets (climate, geography, natural resources) to created assets (educated population, cultural amenities, environmental quality). Issues related to place cross jurisdictional lines, which in turn increases the importance of the region and stewardship of its assets. The call to regional stewardship represents one of the greatest opportunities—and challenges—for state colleges and universities and their local partners in the years ahead.

But where to start? Even though campuses and their regional (and perhaps state) stakeholders may share a commitment to improved stewardship and may even have a compelling vision for the future of the region, they are often dogged by "how to" questions—how to identify the region and its pressing needs, how to build and maintain robust leadership groups, how to create a supportive public policy environment. Indeed, for many budding regional collaborations, the most vexing questions are not those related to will, but those of way.

That is where the work of Making Place Matter—a partnership of the Alliance for Regional Stewardship, the American Association of State Colleges and Universities, and the National Center for Higher Education Management Systems—begins. This two-year initiative is designed to promote the concept of regional stewardship and public higher education's role in it by equipping campuses and their partners with strategies, tools, information, and insight to enrich and fortify their working relationships. Through a combination of theoretical frameworks and hands-on application through case studies, Making Place Matter aims to provide regional stewardship models that are broadly relevant and adaptable for campuses and regions nationwide.

The first step in the process, defining regional stewardship and its imperatives for higher education, is taken up by the following monograph, which serves as the conceptual "anchor" of this publication and the project as a whole. It outlines seven societal forces that demand changing roles for colleges and universities, and offers a 21st Century reformulation of the time-honored teaching-research-service triad. University responses to these imperatives are illustrated through case study examples.

Next comes the difficult but essential—and hopefully rewarding—step of identifying the region and its challenges/opportunities, the university's current and potential contributions, and the institutional and state policy environments through a stewardship audit, culminating in the development of a regional stewardship roadmap. The audit, which complements the monograph, requires state colleges and their regional and state stakeholders to paint a clear and compelling picture of what the region looks like, its current status regarding key development and quality of life issues, and options for moving forward on these issues. The audit will be pilot-tested by four campuses/regions selected as demonstration sites for the project, but all state colleges and universities are encouraged to use it in their planning and environmental scanning processes.

In moving forward, it is important to remember that regional stewardship is not a task or a project—it is an orientation, a way of doing business and looking at the world. Building to that point requires commitment, creativity and flexibility on the part of all involved. There is no single path to greater regional stewardship, but the journey starts with understanding the terrain and plotting a course. Hopefully, the information and case examples found in the following pages will help state colleges and universities and their partners to do just that.

Regions, Universities, and Stewardship: Connecting the Dots in a New World

I. Introduction

Today we live, in the words of economist Michael Storper, in a "regional world"—a world in which regional economies around the world compete with one another for prosperity and success. And every day, there is new evidence that the success of these regional economies is linked to smart people and new discoveries – in other words, to those things that are most frequently bred in universities and other institutions of higher learning.

This connection means that it is the best of times and the worst of times for universities. It is the best of times because universities are likely to sit at the center of regional prosperity, creating tremendous opportunities and rewards. Most can expect pivotal roles in state and regional economic development strategies. Some will receive significant funding to create value for a region—as universities in Michigan did when they got $1 billion from the state's tobacco settlement fund to develop a life sciences corridor.

It is the worst of times, however, because these opportunities are also creating different expectations that many institutions may be hard-pressed to meet. Universities are already being asked to stretch far beyond their traditional roles of educating students and conducting research. These days, the list includes things like tackling urban revitalization, pioneering innovation, and fostering entrepreneurship. This means that communities and regions will be paying more attention to how the educational "engine" works.

It's not new that outsiders will demand that universities deliver greater efficiency, less duplication, and more accountability. For decades, higher education has been pressured to come up with "run-more-like-business" tune-ups that come from citizen governing boards baffled by institutions' size and complexity. Universities' role in economic development is also old hat at this point, as politicians and business leaders long ago figured out that these institutions could provide the basis of education and technical know-how to help create jobs.

Even though these previous efforts sought to change the university, they still remain within the traditional university model, one where the university serves the community/region/state but remains separated from these and other stakeholders in many crucial respects. It is becoming increasingly clear that the time has come for a new model, not a tune-up. It is not clear that the traditional university has the mission, the culture, or the might to play the role that it must play today in the regional economy, which is to be more attuned to local challenges and more responsible for community success.

During the Iraq war, the American military referred to war correspondents traveling with military units as “embedded.” The phrase meant that the journalists were permanently associated with those military units and could not be separated from them. The fate of the embedded journalist and the fate of the military unit were one. They lived or died together.

According to Michael Crow, Arizona State University’s new president, universities are “embedded” in regions. Their fates are intertwined and cannot be separated, which means universities must modify or even shed their traditional roles, and view themselves more integrally as stakeholders in the communities where they are located. Crow uses the term “embeddedness” repeatedly to describe his vision of the relationship between Arizona State, the nation’s fifth-largest university, and metropolitan Phoenix, one of the nation’s fastest-growing regions.

One aspect of this new university model is that researchers, while pursuing their scholarly interests, would incorporate a strong notion of the public good. This new kind of university would not only engage in community service, but also would become more integrally involved in the economic, social, and cultural health of its community. Following Crow’s logic, then, the “ivory tower model” will be “out” and the engaged university will be “in” in the third century.

Crow is not alone in this assessment. Last year, Harvard University president Lawrence Summers spoke the unspeakable, arguing that Harvard – the ultimate “ivory tower” university – must be “more directly engaged with problems of education and public health,” locally and nationally.

These two young leaders share other redesign ideas. Both talk, for example, about reconfiguring the university’s intellectual life, and replacing academic silos with multidisciplinary activity. Additionally, both speak of re-mapping the student’s path through the university, essentially creating a way to customize the learning process. Both presidents are shaking up their academic leadership and faculty, looking for a new generation of professor-entrepreneurs.

Why the increasing appetite for a more attuned university? Is it because states, corporations and foundations, who invested millions of dollars in university economic initiatives in the 1990s, and now, as shareholders, are questioning return on investment? Is it because shareholders are asking about outputs—new inventors, new patents, and startup companies—while universities and colleges continue to emphasize inputs—new students, teaching hours, or faculty publications—as performance measures? Is there a mismatch between a world that is focused on innovation, learning, and shared leadership and an academy that is still focused on research, teaching and service?

This monograph looks into the forces driving the demand for a more place-focused university. It describes the trends that present both new opportunities

and new expectations for colleges and universities, and suggests some responses; chief among them is an overhaul of the three traditional university pillars: research, teaching, and service. A new threesome—innovation-learning-shared leadership—resonates more as a 21st Century model. Finally, the monograph and the accompanying regional stewardship audit attempt to provide some clear direction about the types of questions regional and university leaders should be asking as they think about the future of their respective regions and about the difference a reconfigured university or college can make in building that future.

II. Explaining the Trends: 7 Big Forces for University Transformation

Changing expectations for universities are being driven by seven major, complex forces in our society:

1. The Idea-Driven Economy
2. The Proximity Edge
3. The Talent Imperative
4. The Big Regional Sort
5. A New Definition of Success
6. A New Focus on Place-Based Assets
7. The Search for Regional Stewards

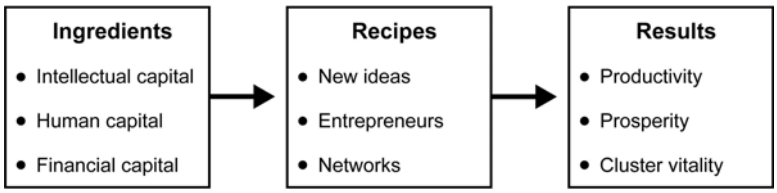
1. The Idea-Driven Economy

Chief among the big seven forces is, of course, the economy. To know what's ahead for higher education, you have to understand that ideas are driving the 21st Century economy. As Seth Godin writes in *Fast Company*, "The first 100 years of our country's history were about who could build the biggest, most efficient farm. The second 100 years were about the race to build efficient factories. The third 100 years are about ideas."

The raw material of economic growth for the next century will not be natural resources or physical labor, but ideas. Those ideas will be created, grown, and turned into what Stanford economist Paul Romer calls "recipes," not on farms or in factories, but in universities and other research settings.

Romer's "New Growth Theory" argues that idea recipes add value by reorganizing physical resources (natural, human, capital) in new and different ways to yield more valuable economic results. Think about what's valuable in a floppy disk or a latte; it is not merely the ingredients (iron oxide, coffee beans), which have been around forever, but the new ways the ingredients are combined and presented to the customer. [see Figure 1]

Figure 1. The New Growth Theory



Source: Collaborative Economics

Predictably, companies, policymakers and economic development officials are jockeying for position in the race to spur innovation. City leaders are buying Richard Florida's book, *The Rise of the Creative Class*, for the secret. Fortune 500 companies and even nations are paying large sums to consult Harvard Business School expert Michael Porter about building "clusters of innovation." The Harvard Business Review is teeming with "how to" articles for its business readers.

From these sources and others, three important stories are unfolding about the who-where-when of innovation.

- *Companies that don't innovate, die.* There is no steady state. Innovation is vital to sustain and advance companies' current businesses, regardless of size or industry, and is critical to growing new businesses.

- *Successful regions institutionalize innovation.* They don't rely on chance, but rather create sustainable innovative capacity by building strong colleges and universities and research centers, and by attracting research divisions of major companies, to create continuous innovation and entrepreneurship.

- *Innovation requires expertise, interaction, and diversity.* Whether a design firm, a research facility, a main street, or a region, an innovative place needs all three things. *Expertise* in the form of smart, talented people; *interaction* in the form of offices, research labs, downtown districts, and other places that facilitate easy interaction and spontaneous dialogue; and *diversity* in the sense that people from disparate fields must work together because "sparks fly" when people interact with people less like themselves.

To stay relevant, colleges and universities—in big cities, in small communities, and in rural areas—must be as engaged as companies and regions in deciphering the complex dynamics of innovation. As traditional sites for basic and applied research and development (R&D) and as generators of human

capital, colleges and universities are as close as we get to public "knowledge factories."

However, few—if any—colleges and universities are model innovative enterprises. Generally speaking, institutions have been slow to grasp that innovation is as much about using new ideas as it is about discovering new ideas. Historically, idea generation through basic research (the "scholarship of discovery") has attracted the most public attention and funding support. More difficult—and less recognized—is the translation of new ideas, technologies, and business models into successful solutions for local challenges. This approach (the "scholarship of application") must be seen as equally critical for public universities to be relevant in the unfolding economic and social environment.

2. The Proximity Edge

Like all raw material, ideas must move, grow, and touch many people to have benefits. Traditionally, innovative companies have sought to control these ideas through a process described by Harvard professor Henry Chesbrough as "closed innovation"—that is, by creating in-house research capability controlled by the company.

Today, American companies and entrepreneurs are abandoning the closed innovation model. The process of change, seeded in globalization and accelerated by information technology, is loosening structures and breaching boundaries. Increasingly, development and growth is taking place not inside the corporation itself but through partnerships, joint ventures, and alliances with institutions in different industries and with different technologies. According to Chesbrough, "Many companies are starting to innovate with the research discoveries of others."

There are many reasons for this. First, the growing mobility of highly experienced, skilled people and the burgeoning number of well-trained university graduates has led knowledge to be diffused well beyond any corporation's walls. Additionally, the growth of venture capitalist firms has produced a wider availability of funding to commercialize research from outside the walls of the great corporate R&D centers, turning start-up companies into formidable competitors. The result is what Chesbrough terms an "open innovation" approach, in which corporations have to be alert to all the research that could affect their company, be it from internal or external sources, and be prepared to turn it into revenue.

Intel Corporation, for one, is adopting this new approach, according to Chesbrough. Two years ago, Intel opened "lablets"—small-sized research facilities—adjacent to three top university research centers, instead of next to its own fabrication facilities, as had been the previous practice. Each lablet is led by a university faculty member who is on academic leave and is not a permanent

Intel employee. Intel will not own the output of the research, but hopes to benefit instead by being connected more closely to leading academic research and gaining early access to promising new technologies.

This approach applies to all companies, not just high-tech firms. In 1999, packaged goods manufacturer Procter & Gamble (P&G) named a director of external innovation and set the goal of sourcing 50 percent of its innovation from outside the company in five years. The company's rationale is simple—inside P&G are more than 8,600 scientists advancing the industrial knowledge that enables new P&G offerings; outside are 1.5 million. Why try to invent everything internally?

All this means that proximity to knowledge and technical expertise has become more important than ever. Now and in the future, critical factors in business location decisions will be knowledge, relationships, and mindset—especially for those companies competing on the basis of innovation. According to Michael Porter, "The role of location has been long overlooked, despite striking evidence that innovation and competitive success in so many fields are geographically concentrated." Given these facts, innovative companies are likely to be attracted to places that offer critical, not easily replicated ingredients. This stands in stark contrast to companies that compete on cost, which are known to move great distances in search of lower costs, leading them to China and other developing countries. [see Figure 2]

Against this backdrop, cities and regions blessed with a university or college presence start with a distinct economic development advantage in a knowledge economy. But that advantage has to be cultivated, and it is essential for civic leaders and higher education officials to grasp and adapt to 21st Century business geography.

Figure 2. When Face-to-Face is a Location Priority

Age of Product	Examples of Product	Location Priorities	Cost Sensitivity	Examples of Preferred Locations
Young	New media: Internet product development; Web-site design	! Urban lifestyle ! High face-to-face interaction ! Availability of talent from multiple disciplines: designers, computer technicians, advertising, telecommunications, etc.	Less sensitive to cost	Silicon Gulch, Silicon Alley
Mature	Small electronic goods manufacture, athletic shoes	! Low cost entry level labor ! Low cost space ! Affordable low-income housing	Heavy cost sensitivity	Far East, less developed countries

Source: Cohen, N. *Business Location Decision-Making and the Cities: Bringing Companies Back*, April 2000.

3. The Talent Imperative

With “Innovate or Die” as the first rule of the new economy, the second rule surely is: “Have Talent or Die.” Skilled people, not computers or raw silicon, are the fundamental source of the innovation that drives the economy. That’s why Hewlett Packard CEO Carly Fiorina recently told a gathering of the nation’s governors to “…keep your tax incentives and highway interchanges; we will go where the highly-skilled people are.”

It is also why Richard Florida tells cities, universities, and corporations to start thinking not just about their business climate, but also about their “people climate.” In his book, *The Rise of the Creative Class,* he argues for special attention to the care and feeding of smart young people because, in a world of rapid technological change, a large cohort of young workers can be a significant economic asset.

Florida’s talent message is clearly turning heads. All across the country, urban/metropolitan politicians, economic developers and educators are courting their “creative class” professions—musicians, software developers, engineers, artists, architects, entertainers—and shaping strategies to attract more of them.

And yet, most places are not focusing on talent as broadly as they must. Ironically, just as talent rises in importance, the supply of American workers suitable for an intellectually demanding knowledge economy falls. Influential organizations like the National Governors Association and The Aspen Institute report the seriousness of the talent challenge. For example, one recent analysis from the Aspen Institute reports that:

- For 25 years, our growing economy has depended heavily on the dramatic growth of our native-born workforce—but that growth is now over. From now until 2021, there will be no increase in native-born workers in the so-called “prime-age” category of 25-54 year olds. Therefore, any growth in the labor force will simply have to come from older workers and immigrants.

- For 20 years, our productivity has been boosted by technology and a better educated workforce to take advantage of it. But the educational gains are slowing down—just when we need an educated workforce most. Some 21.6 percent of the labor force had a college degree in 1980; by 2000, the figure had risen to more than 30.2 percent. By 2020, though, it may only rise to 33.6 percent.

- The gap in earnings between rich and poor workers continues to grow.

Beyond this, a 2003 report from the high-tech industry states, “Americans who think that foreign workers are no match for U.S. workers in knowledge, skills and creativity are mistaken.”

All this means that “the people climate” involves more than just finding cafes and nightclubs for young professionals. The growth in the labor force will have to come from older workers and immigrants. So older workers and immigrants must be educated and trained more aggressively than ever before—a job that colleges and universities must take on in any region that hopes to compete economically.

Indeed, every region faces the challenge of developing an appropriate talent strategy. In many regions, a comprehensive strategy will involve: 1) filling the talent pipeline; 2) attracting and retraining talent; 3) promoting career transitions; and 4) tapping specialized talent pools (e.g. health and biomedical cluster). Each region, however, will have to develop its own unique strategy based on particular assets and opportunities, and with its colleges and universities playing a critical role.

4. The Big Regional Sort

The 2000 Census revealed a whole new pattern in metropolitan growth—a brain-driven, winner-take-all pattern in which some regions are big winners and some are big losers. An analysis of these data by the Brookings Institution found that, in terms of college graduates, the rich got richer. Of the country’s 100 largest metropolitan areas, the 25 that already had the most college graduates in 1990 got *more than their fair share* of college graduates—twice as many, in fact—during the 1990s.

Another analysis by the *Austin American-Statesmen*—located in one of the “winner” areas—found that young talent in the country is streaming into 20 “cities of ideas,” including Atlanta, Boston, Denver, Minneapolis, San Diego, San Francisco, Washington, Boise, and Raleigh/Durham.

In other words, the new muscle of the U.S. economy—people who make a living with ideas, creating value with new products, services, or just experiences—is converging in a few regions. And this “Big Regional Sort” is different from the Rust Belt decline and Sun Belt growth of the 1970s and 1980s. Rather than being driven by the movement of manufacturing jobs to low-wage areas, this change is being driven by knowledge workers who are, in the words of one observer, “voting with their feet to live in cities where work is smart, the culture is cool and the environment is clean.”

Losers in the Big Sort are largely located in the Northeast and Midwest, areas where universities are often strong, well-endowed, and important to local economies. Metropolitan areas in the South and West are gaining 25-to-34-year-old migrants at double the rate of Midwest metropolitan areas and four times the

rate of Northeast metropolitan areas, according to Paul Gottlieb, a regional development expert at Case Western Reserve University. The biggest losers on the list were Philadelphia, Detroit and Cleveland. At the same time, metropolitan areas in the Northeast have the highest proportions of workers between the ages of 55 and 64. Those nearing retirement age make up at least one in nine workers in metropolitan areas in New York and Pennsylvania, Gottlieb found.

Yet the West and South face their own big challenges in the Big Sort. Rapid population growth, by itself, does not guarantee that a city will experience a relative gain in college graduates. Growing fast does not necessarily mean growing smart. Las Vegas is the fastest-growing metropolitan area in the nation, but it is attracting more high-school dropouts than college graduates. And immigrants are moving beyond the traditional gateway metropolitan areas such as Los Angeles and Miami to service jobs throughout the Sunbelt and nationwide.

As a result, the Big Sort is also forcing a redefinition of the role of colleges and universities. In the losing metropolitan areas, universities have emerged as one of the few—in some cases only—regional asset capable of attracting knowledge workers. They'll also play a significant role in retooling the older workers and new immigrants to participate in the new economy, a role expected in "winning" regions as well.

5. A New Definition of Success

As The Big Sort continues, many regions are re-examining the definition of success. Las Vegas, for example, would seem to be a big winner in the Big Sort, with population and jobs growing more rapidly there than anywhere else in the nation. As mentioned above, however, the jobs pay low wages and many of the people being drawn to those jobs are poorly educated. So what is the best way to keep score in a fast-moving, globally competitive environment? Is it population growth, or the growth of college-educated population? Is it the number of new jobs, or the wealth created?

Scholars and leading economic development practitioners across the country contend that the creation of wealth should be the goal for companies and communities. We keep score of a company's wealth creation by its profits and productivity gains, and these measures are uniformly understood and used. Not as much certainty and uniformity exist for community goals and measures, though, because economic development can mean many different things to many different people.

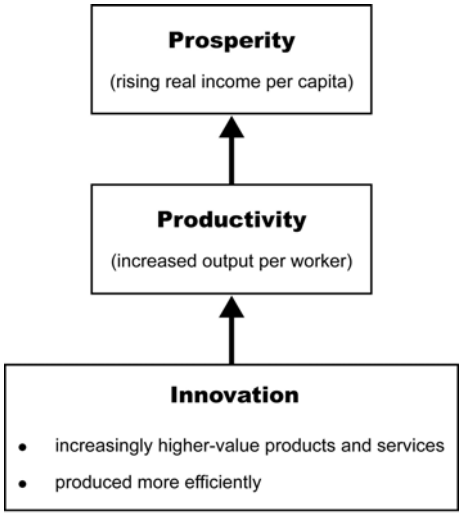
A number of observers, however, including the Milken Institute's Ross DeVol, Silicon Valley expert Doug Henton, and Case Western's Paul Gottlieb make strong cases that per capita income growth is the best proxy for "the local policymaker's true goal, which is to improve the economic welfare of current

constituents." Gottlieb in particular has documented that, in Rust Belt communities, it is possible to have "growth without growth"—that is, income gains without population gains.

In a knowledge-based economy, the "success through wealth" approach also forces colleges and universities to play an integral role in the region's economy. Figure 3 depicts the relationships embedded in a "success through wealth" approach.

A region's overall economic prosperity requires an increase in standard of living (rising real income per capita)—which requires steady growth in productivity (output per employee)—which in turn requires innovation. A "competitive" community has the capacity to increase real income by producing increasingly higher-value goods and services that meet the test of world markets.

Figure 3. The "Success Through Wealth" Approach



Source: Collaborative Economics

But what are the factors and policies that will boost per-capita income? Like any area of public policy, the question of economic development is not just a question of goals. It is also a question of tools and policies. What does it take to raise living standards—to compete on innovation—to make things happen? Recent research makes the answers pretty clear:

1. *Education Level.* The percentage of college graduates and post-graduates is the single factor with the greatest power to explain differences in per capita income between states.

2. *Science and Technology Activity.* More than 75 percent of personal income growth in states during the 1990s can be tied to increases in technology output.

3. *Export-Oriented Industries.* Typically, industries oriented to national/global markets produce relatively high-value products and services and, therefore, can pay their workers more. Moreover, companies that compete in national and global markets tend to benefit from a "virtuous cycle of competition, innovation, and productivity growth."

4. *Entrepreneurial Initiative.* Entrepreneurial companies generate the vast majority of new jobs and breakthrough innovations in the economy.

5. *Innovation Across Industries and Sectors*. Productivity gains do not depend on what industries a region competes in, but on how it competes. In fact, many of the prime economic opportunities in the years ahead will involve the search for ways to boost productivity and innovation capacity in the service sector—retail businesses, offices, hospitals, and schools—which accounts for 80 percent of all economic activity.

6. *Talent Strategy.* Regions that promote talent development across industries are most likely to be economic winners. Despite their considerable advantages, neither large regions nor well-known high tech centers have exclusively cornered the market as "creative class" hubs. All regions have unique talent assets that can contribute to the development of innovative economies and livable communities.

7. *Reduction of Poverty and Inequality.* Even though many of the highest performing regions (Silicon Valley, Austin) have stark two-tier economies, research shows that broad-based well-being of residents and decreased poverty are important for sustained increases in economic growth.

The role of colleges and universities in boosting regional wealth is obvious. These institutions play a central role in increasing the stock of postsecondary-educated persons in a region. Additionally, they are the pipelines for entrepreneurs in a wide variety of fields. Their employees form a key component of the region's talent stock. Moreover, they can create areas of excellence within that help differentiate the university as well as differentiate local export-oriented industries from their rivals elsewhere. Finally, universities and specialized research centers are the driving force behind innovation in nearly every region. Communities that don't have capacity for innovation are forced to compete on cost, which ultimately lowers their standard of living.

Beyond that, the most striking observation about the above list is that, in large measure, the ingredients of prosperity are created, not inherited. In other words, highly educated people, great universities, networks for learning, and quality of

life are not accidental but the result of combined strategic effort and sustained civic effort—effort that colleges and universities must play a role in helping to bring about.

6. A New Focus on Place-Based Assets

As more and more businesses and workers are adjusting to the reality that the home or business location decision is a real choice, cities and regions that thrive will have to be attractive places for people to live and work. Hence, it is critical to know what's on their "shopping list." When one looks at the Big Sort, it seems that people and businesses are working with a more complex calculation of quality of place than simply good climate, living costs, and basic entertainment. As Figure 4 shows, today's "magnet" locales tend to be places with strong colleges and universities, an atmosphere in which arts and creativity flourish, where unique cultural and recreational opportunities abound, and where entrepreneurial behavior is nurtured.

These assets are not inherited—they're created. While climate, natural resources, and population are important factors, the most significant elements are "built," and can be improved through public policy and other human effort. Colleges and universities are among the most important building blocks of created placed-based assets, helping to create a pool of graduates, research consortia, and unique urban amenities.

Figure 4. Quality of Place—Six Defining Characteristics

Today, there is a more complex calculation of quality of place than simply good climate, living costs, and basic entertainment. The new calculation is based on much more—in fact, six factors are "in play" when it comes to defining quality of place—and cities and regions will want to evaluate how their community can match up its assets to these six characteristics and decide which ones are missing and need to be developed. The six characteristics can best be described as follows:

Natural environment counts for a lot. Not surprisingly, if a person can locate anywhere, he or she will go where there's a pleasant climate and beautiful scenery. If a locale is cold and plain, then it had better be smart. As Harvard University economist Edward Glaeser puts it, what's often true for people is true for cities: If you aren't born lucky or popular, be smart and work hard. American cities outside the Sunbelt that have particularly skilled and well-educated populations prosper; they are strong on the other key characteristics. Additionally, cities with educated populations may react more quickly when the economy changes, reinventing those cities.

Places must also have distinctive urban amenities. There is growing evidence that people are drawn to communities that offer particular attributes they desire—a live music scene, perhaps, or a wide range of dining choices. Not all urban amenities, however, act as a magnet for talent. Instead, it's those peculiar attributes that are difficult to duplicate and cater to highly educated people that are emerging as real competitive features for locales.

Lifestyle choices matter in the talent war. In striving to become rich in talent, a locale is smart to offer something for everyone. Specifically, cities/regions should pay close attention to the diverse lifestyle preferences of three highly mobile talent groups:

Young talent: skilled knowledge-industry professionals, scientists, and engineers in their 20s and 30s who want to live in exciting places
Baby Boomers: managers and professionals in their 40s and 50s who are now "empty nesters" and contemplating "active retirement" and may look for places where they can easily go back to school or start new businesses.
Immigrants: highly skilled, entrepreneurial immigrants are moving to places that have open, tolerant social structures, a range of community choices, and dynamic, fast-growing economies.

Being a smart, innovative place matters. "Smart people like to be with other smart people," observes Harvard University scholar Juan Enriquez. Snobbery doesn't fuel this drive for clustering, he says, so much as awareness that learning and the most rapid advances tend to take place through face-to-face interaction and information exchange. Sharing knowledge, skills and experience is simply easier when people and businesses are in close proximity to each other. Institutions like universities, design schools, and specialized research centers are also "smart" attributes that draw top talent and industries to a given location.

It's not just about physical attributes. Intangibles such as "hipness," tolerance, and entrepreneurial culture are part of the calculation. Richard Florida believes people look for the same things in a city that they look for in a company: energy, amenities, inclusiveness, and sense of fun. Talented and creative people want to be where the action is and where the interaction is. That is where they find unique life experiences—and that is where their ideas stand the best chance of coming to fruition.

Speed is a vital amenity. Evidence increasingly suggests that the ease with which individuals can move around a region and get things done looms large in a place's attractiveness. As time becomes more valuable, those individuals who can locate anywhere will particularly avoid areas where movement is too difficult, too time consuming, and hence too expensive. To attract talent, then, places will need effective transportation options, efficient government regulatory processes, and speedy innovation processes.

SOURCE: Waits, M.J., *Which Way Scottsdale?*

It's also worth noting that the new century will be a highly competitive one, especially as regions realize that universities and other place-based assets are "buildable." Accordingly, each region must find the right goal, and then focus on building its place-based assets in pursuit of that goal. Successful regions are choosing to be successful by setting clear goals, mobilizing their resources, and staying on task.

Take the examples of Boise and Austin. Here are two regions where local leaders judiciously used a combination of local economic strengths, inherited assets (e.g., geography, climate, universities), and assets they built to create whole new economic strengths and world-class identity for their respective regions.

From Government Town to Applied Technology Powerhouse: Boise

As noted above, Boise, Idaho has rapidly gained a reputation as one of the most competitive metropolitan areas in the New Economy. Indeed, Boise has made *Forbes Magazine's* list of Best Places for Business and Careers three of the past five years, ranking second in 2003. The area's economic stature has been bolstered in large part by an explosion in applied technology firms, especially

microelectronics companies producing components for consumer electronics and medical equipment, and more.

Boise's rise did not happen overnight, however, and it did not occur spontaneously. The development of a contemporary economic base for the Treasure Valley included a progression of steps by one of the region's primary educational providers, Boise State University (BSU), to become more involved in the transformation of the region.

One of the first steps came in 1985, when BSU established the Canyon County Center in Nampa (24 miles west of the main campus) to meet the academic and vocational needs of the rapidly expanding western end of the Treasure Valley (the region encompassing the Boise metropolitan area). Today, the Center provides coursework for associate, baccalaureate, and graduate degrees, as well as vocational/workforce training and programming through BSU's College of Applied Technology and Center for Workforce Training.

Another key development came in 1994, when BSU embarked on an innovative project to help bring market economics to Vietnam. The program brings Vietnamese leaders and managers to the MBA program on campus, helps to support development of a business school at Vietnam's National Economics University (NEU), and promotes joint research projects and other degree/non-degree programs that promote trade and investment in Vietnam. More than 80 Vietnamese have been trained at BSU, and NEU is quickly building the faculty to deliver its own programming. Perhaps most importantly, the program has stimulated interest in global economic opportunities for the region, facilitated by the university.

Perhaps the most significant step occurred in 1997, when BSU established its College of Engineering, spurred by the needs of the region's rapidly growing applied technology sector. The college, which now employs approximately 90 faculty and enrolls more than 1,400 students per semester, offers programs in high-demand fields such as microelectronics and materials science in a curriculum designed to integrate the needs of students with those of local industry and government. The college's close working relationships with local firms such as Micron has paved the way for joint applied research projects, experiential opportunities for students and faculty, and support for state-of-the-art equipment and facilities. For example, BSU boasts one of the only university-based modern microfabrication laboratories for six-inch wafer processing in the nation.

These developments have brought two simultaneous developments. First, they have provided the education and training infrastructure needed to cultivate a new and dynamic industry cluster in the region. Second, and perhaps more importantly, they have more fully integrated Boise State University into the region's development agenda.

From Sleepy College Town to Top "City of Ideas": Austin

Three decades ago, Austin, Texas was still a sleepy state capital and college town torn by town-gown versus no-growth debates that blocked progress on virtually any economic, social, or environmental objective. The region's per capita income was 85 percent of the national average. The University of Texas at Austin did not see itself connected either to the region or to local businesses. The state government was more attuned to traditional pillars of the Texas economy, oil and real estate. Then came an opportunity—and a group of regional leaders who knew how to seize it—that would fundamentally transform Austin.

Austin's business leaders, the university, and the state joined forces in 1983 to recruit Microelectronics and Computer Technology Corporation (MCC), the first major U.S. technology consortium assembled to meet the competitive challenge from the Japanese. They did not stop there, however. They set their sights on becoming a major regional player in technology by not only investing in 32 new faculty chairs in engineering at the university to attract the second major consortium, SEMATECH, in 1986, but also in creating entrepreneurial support networks through incubators, seed capital funds, and active mentoring. Between 1989 and 1999, the number of jobs in the region grew by more than 5 percent per year, and per capita income increased from 85 percent of the national average to 107 percent.

Guiding this effort was an underlying strategy crafted by the Austin Chamber of Commerce in cooperation with public and civic leaders. The strategy, developed in 1985, made the case that Austin could become a magnet for high-wage information companies and the creative talent associated with those companies by focusing on quality of life because knowledge workers had great choices regarding where to live. Austin had to become a great place to live if it was to become a vital regional economy. The plan also made the case that while attraction within growing information industry clusters would be important initially, homegrown entrepreneurship would ultimately determine the level of Austin's success.

Austin's leaders did not stop with their first round of success. Many continued to work together in informal and formal ways to mentor the next generation of leaders in the 1990s. George Kozmetsky, the founder of Teledyne and a former dean of the University of Texas School of Business, created the Innovation, Creativity and Capital Institute, which provided assistance to entrepreneurs through its incubators and seed capital funds. In 2000, young entrepreneurs organized the Austin 360 Summit to connect emerging technology community and encourage greater participation in Austin's future. The Austin Idea Network emerged, establishing a "network of networks" to facilitate collaboration on issues that threaten the region's quality of life and further a long-term vision of

connecting the technology and cultural assets of the broader region to promote Austin as a “creative community.”

7. The Search for Regional Stewards

Clearly, smart regions are not leaving success to chance. But who takes the lead? Who has the intelligence, imagination, cooperation and commitment to make the best use of the opportunities and challenges before regions?

Corporate CEOs are much less likely to play this role today than in the past. CEOs of most large corporations have fewer roots in a single region and make less time for regional civic affairs. Executives of fast-growing companies are often a challenge to identify and tap for leadership positions. New immigrants and young professionals may not yet be plugged in to regional networks and issues. Local elected leaders often find themselves at odds. This “anonymity of leadership” makes it difficult to develop coalitions for significant and lasting regional change.

Regional leaders who do care are often stuck in fragmented, disconnected, and uninspired approaches. Leaders who work on single issues or causes—tax cuts, football stadiums, urban growth, and transportation—and ignore related problems simply won’t get the job done. The same applies for leaders who do not know what other leaders are doing, and have a hard time linking their efforts. The building of knowledge assets—exceptional workers, research consortia, strong networks—requires focused and coordinated approaches.

What’s the solution? “Find your stewards of place,” counsels Doug Henton, president of Collaborative Economics and a member of the Alliance for Regional Stewardship. Every flourishing place has people who act as its stewards. These individuals are committed to and actively work for the long-term economic and social success of their locale—advocating for it, nurturing it, seeking to solve its problems and improve its prospects.

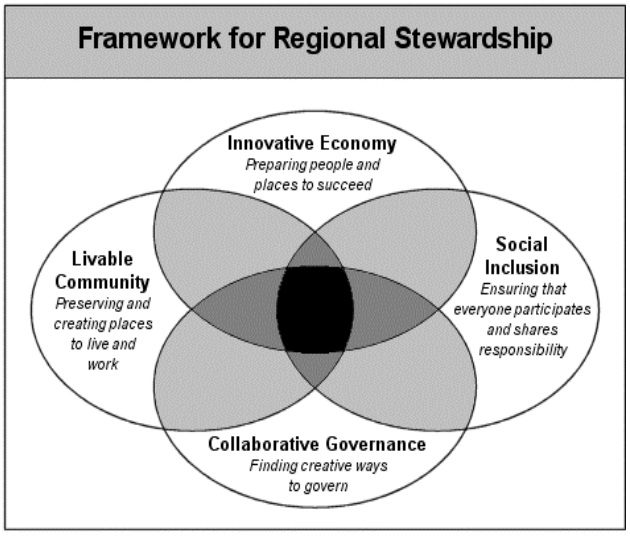
As Figure 5 shows, stewards—derived from the word stewardship, which refers to “the careful and responsible management of something entrusted to one’s care”—are leaders who cross boundaries, take an integrated approach, and build coalitions for action. They are leaders who are committed to the long-term well-being of places and have a 360-degree vision, recognizing the interdependencies between the economy, environment and social equity.

Figure 5. From Traditional Leadership to Regional Stewardship

Traditional Leadership	Regional Stewardship
One jurisdiction One organization	Crosses jurisdictions and organizations
Specific problem or goal	Integrated vision/goals for the region
Leverages his or her networks	Brings diverse networks together
Commitment to an issue/cause	Commitment to place

Regional stewards operate at the intersection of four key "conversations," not at the edges, as illustrated by Figure 6.

Figure 6.



SOURCE: Alliance for Regional Stewardship

As regions begin their search for stewards of place, public colleges and universities are likely to come to mind. These institutions are deeply imbued with a sense of place, as their names and statutory missions prominently reference specific geographic areas, and their students are drawn largely from those areas. Perhaps most importantly, their physical infrastructure commits them to place.

That makes them logical anchors for the types of strategic and sustained civic efforts required to build key place-based assets. They are logical anchors to help resolve complex environmental, social and economic issues facing regions today. In other words, colleges and universities are in a position to bring together four agendas that regions usually pursue separately—innovative economy, livable community, social inclusion, and collaborative governance. Examples of how universities and colleges are engaging in the four regional conversations can be found in the Appendix.

III. Redefining the University Model for Regional Stewardship

In the agricultural age, colleges and universities studied and promoted innovations in agricultural science that increased crop yield. In the industrial age, colleges and universities played a similar, pivotal role, developing and disseminating ideas about management science that increased productivity and profitability. Today, we are in an age where the economy is driven by ideas, and the idea-driven economy requires more from colleges and universities than merely creating and disseminating the ideas. Such an economy requires academic institutions to redefine the university model so that they are permanently engaged as a full partner in the viability and vitality of the regions to which they are connected.

This involves a fundamental shift in thinking regarding the role colleges and universities play. It will require what amounts to a third wave of transformation in higher education—essentially, a New American University Version 3.0.

The first wave focused on “running higher education more like a business.” These were the sorts of organizational “tune ups” that gained momentum from the movements in the early 1990s to reinvent government and reengineer business. That was New American University Version 1.0. But Version 1.0 centered around internal operations rather than external relationships.

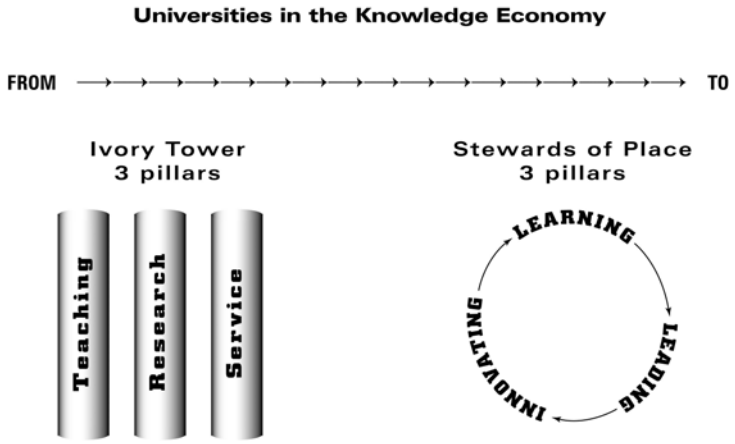
The second big wave, New American University Version 2.0, started in the late 1990s, when higher education “engaged” in regional and state economic development efforts, producing partnerships between universities and businesses. For many institutions, however, the second wave marked only the basic recognition of the need to engage, rather than the policies and practices required for deep, sustained engagement. As noted above, universities are—and must be recognized as—embedded institutions in the region, intertwined with the prosperity and the fate of that region.

New American University Version 3.0 arises in response to a world that is deeply interested in organizations and people that can spark innovation, facilitate learning, and sustain success. It requires colleges and universities to assume more responsibility for the economic, social, and cultural health of their

communities. It draws on the changes of Versions 1.0 and 2.0 and pushes them to a new level in a regional environment. Version 3.0 requires that universities take the three traditional pillars of the university mission—teaching, research, and service—and turn them on their collective head. Instead of being about *teaching*, universities must be about *learning*. Instead of focusing on *research*, universities must focus on *innovation*. And instead of *serving*, a university must be an institution focused on *shared leadership*.

These three transformations are discussed in more detail below. But each of the three affects and is dependent upon the other two, as shown in Figure 7.

Figure 7.



From teaching to learning. Learning is a critical pillar because it properly conveys the message that the acquisition, creation, and application of knowledge are increasingly viewed as central to our health, happiness, and prosperity as a society.

- It speaks to elevating the overall role of learning in society and the need to commit to lifelong learning, or the never-ending quest for knowledge. As writer Alvin Toffler points out, "The illiterate of the 21st Century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn."

- It recognizes that many highly educated adults will be returning to universities and that the new dynamic will be collective learning among faculty and students, rather than faculty teaching students.

- It recognizes that students need to learn academic content through real-world examples, applications and experiences, both inside and outside the classroom environment.

- Perhaps most importantly, it establishes a different measure of success; academic quality is measured by the education that graduates have received, rather than the academic credentials of incoming freshmen class.

From research to innovation. This shift recognizes that innovation is key to economic growth and prosperity, and positions colleges and universities "in-play" as a region's chief source of expertise, diversity and interaction—the three key ingredients of innovation.

- It recognizes that innovation means something quite different from research *per se* or even creativity. Although research and creativity (the generation of ideas) is important, it is not the same as innovation (the application of new ideas). Creative ideas that are not used do not contribute to economic prosperity. They may be valuable to the culture or society, but the process of turning ideas into new industries and modernizing old industries is a different and complex process. Simply put, innovation includes entrepreneurship as an integral component.

- Despite the popular image of the inventor as lone agent or researcher, innovation is a deeply collaborative process. Thus, this new pillar signals that academics and businesspeople must spend more time together, with talented researchers moving out of the university and into the community, or vice versa. The terms of the emerging global economy make it clear that business success derives heavily from cross-sector linkages. As such, universities need to be places where linkages can be forged and facilitated. As one expert notes, universities—and communities—will thrive as economic centers to the extent that businesses and the people in them can learn more and develop better by being there, in communication with one another, than somewhere else.

- Because diversity and interaction are pillars of innovation, this new pillar encourages teaching and research that are interdisciplinary and multidisciplinary. It is no longer sufficient to neatly categorize knowledge into discipline-based academic departments.

From service to shared leadership. This pillar shift recognizes that in the past, engagement has been hampered by the traditional "walls" that separate universities and communities. In the traditional university model, knowledge and resources are held tightly within institutions; in the new model, ideas and resources flow more freely and in both directions between universities and communities.

- This pillar signals that institutions do not engage in occasional community service, but rather make a sustained commitment to the economic, social, and cultural vitality of its communities and regions through collaborative

leadership on key issues. It also signals a "focus on place" which means that the university will learn from local expertise, and consider the local relevance of its research, programs, and partnerships.

- It establishes that the institution has capital of all kinds – human, intellectual, financial, and social—to lead regional transformations. Human capital provides for both the workforce and the entrepreneurs. Intellectual capital contributes the ideas, inventions, technologies, and know-how. Financial capital includes funds for research and knowledge transfer, as well as the money for the support services necessary for businesses to thrive. Social capital arises from networks of human and organizational interaction that are found in all dynamic, entrepreneurial communities.

This is not just a matter of semantics, as some may contend, because beneath the three terms—learning, innovation, and shared leadership—lie some of the most significant changes in the history of American higher education. New pillars can signal to outsiders—companies, citizens, political leaders—that the university is current, connected, and striving to be relevant. New pillars can also signal to faculty and administrators what is important. In this world, questions related to the health and welfare of place are no longer "bolt-on" features of the enterprise—they are central to the enterprise, and embrace all major facets of university life, as Figure 8 indicates.

Figure 8. Shifting Higher Education's "Pillars"

TEACHING TO LEARNING	
From…	**To…**
Classroom	Classroom without walls
Teaching inputs	Educational outcomes
One-way content delivery	Two-way exchange
Preparation of next generation	Continuous preparation of all generations
RESEARCH TO INNOVATION	
From…	**To…**
Idea generation	Idea application
Individual inventions	Collaborative innovations
Single discipline focus	Interdisciplinary focus
University-centered work	Regional collaborations
SERVICE TO SHARED LEADERSHIP	
From…	**To…**
Episodic, short-term involvement	Sustained, long-term involvement
Tactical, individual contributions	Strategic, institutional commitment
Issue/cause focus	Community/region well-being focus
Accountability for services rendered	Shared responsibility for results

SOURCE: Collaborative Economics

As part of his plan to refocus Arizona State University, Michael Crow has created two new President's Medals—The President's Award for Innovation, and the President's Medal for Social Embeddedness. The latter award recognizes departmental, inter-departmental, or multi-disciplinary teams that have identified community issues and needs and then formed partnerships with the community to develop solutions.

Crow and other university presidents, such as Eugene Trani of Virginia Commonwealth University, are confident that a new "gold standard" lies ahead for American higher education institutions. For Crow, the new standard will be university responsiveness to community needs. For his part, Trani sees the list of the nation's top universities changing profoundly based on three issues: 1) location—smart universities will shape their campuses and surrounding communities to be attractive to students and faculty; 2) imaginative programming—smart universities will offer students and faculty a wide range of hands-on experience and cross-disciplinary opportunities; and 3) collaboration—smart universities will carry learning and research outside the classroom and into businesses, local arts and cultural venues, and public schools.

These two presidents—and others—are shifting the focus from what states should do for their campuses to what campuses should do for their students and their regions.

IV. Conclusion

There is a giant knocking sound at the university door, to paraphrase Ross Perot. It comes from the seven forces described in this report. These forces can seem daunting at first, because they require universities to rethink their role in our society and our economy, and because they will create a new set of expectations that might seem hard to meet. But they also present great opportunities for universities as well. Regions *need* their colleges and universities more than ever before. They *need* these institutions to be deeply engaged, to recognize they are permanently *embedded* in the life and success of the region. If colleges and universities can respond to the "Big 7" forces and reinvent themselves around the concepts of learning, innovation, and engagement, they will gain new respect and cash in on new opportunities. They will thrive together with their regions in the 21st Century.

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Appendix—Case Studies

Universities and colleges across the country are meeting the expectations, seizing the opportunities and benefiting from the newfound respect. Here are some examples of how universities and colleges are responding to—and "cashing in"—in the four key areas:

Innovative Economy. Colleges and universities significantly contribute to the "innovation equation" in their regions.

Livable Community. Colleges and universities function as a magnet for talent and companies, and use their expertise for solving local/regional quality of life issues (air quality, urban revitalization, entertainment, transportation).

Social Inclusion. Colleges and universities employ their resources to bring economic, educational, and cultural opportunities to areas that are disadvantaged and/or often overlooked.

Collaborative Governance. Colleges and universities serve as part of a new regional model of leadership that is based on collaboration and civic engagement

Innovative Economy

Arizona and Proposition 301
[http://researchnet.asu.edu/prop301/]

In 1990, Arizona developed one of the country's first economic development strategies focused on industry clusters. Presidents of the state's three public universities (University of Arizona, Arizona State University, and Northern Arizona University) embraced the strategy immediately, and called on their college deans, economic development offices, and others to participate in the science and technology cluster organizations, which formed to promote greater collaboration among regional firms and institutions key to cluster competitiveness. Largely in response to cluster strategies, the universities, over a ten-year period, changed patent policies and formed school-to-work partnerships. The cluster organizations were, in turn, strong advocates for universities in a sales tax increase to fund education.

In November 2000, the state's voters approved Proposition 301, which earmarks a portion of state sales taxes to boost education funding by nearly $460 million a year for 20 years. The three state universities receive about 12 percent of the available funds ($44 million) annually for research and the infusion of new knowledge into the economy. Arizona's universities have worked together, as well as with regional science and technology clusters, to identify areas where they have foundations on which to build. The university portion of 301 totals $1.1

billion over 20 years. Moreover, Proposition 301 revenues are reserved exclusively for the universities and cannot be diverted or changed by the legislature.

Metropolitan Education and Training Services (METS)
[www.usemets.com]

Established in 1999, METS is a non-profit public service advocacy group founded by and affiliated with Northern Kentucky University (NKU). METS aids firms (especially small and medium-sized) in the greater Cincinnati metropolitan area in securing high-quality, relevant, "just in time" training and short-term education for their employees. Services provided by METS include supplying critical information about relevant education/training providers, soliciting bids from providers on behalf of firms, and conducting quality assessment of education and training provided.

METS arose out of needs identified by the local business community, many members of which struggle to provide the education-training-development (EdTraDev) needed to maintain their innovation potential and keep their firms competitive. Many area firms have indicated to university leadership that the base education level of the local workforce requires them to provide additional training and skill development, but feel that they need help in navigating the provider market for programs that represent a good "fit" with their particular requirements. By working closely with the firm to identify their education/training needs and matching it with possible providers through a national database, METS does the work that many young and developing firms could not do for themselves. Moreover, by evaluating the product delivered, METS can refine its provider list while helping firms to identify "next steps" in education and training.

In addition to NKU, other METS partners include Delta Airlines, the Kentucky Community and Technical College System, the State of Kentucky, the Tri-County Economic Development Corporation, the Greater Cincinnati Chamber of Commerce, and the Northern Kentucky Chamber of Commerce.

Livable Community

Center for Information Technology Research in the Interest of Society (CITRIS)
[http://www.citris.berkeley.edu/]

With his vision for four new centers of science and innovation, former Gov. Gray Davis galvanized a powerful California partnership of university, industry, and government to create CITRIS. Centered at University of California at Berkeley, CITRIS's mission is to create and harness information technology to tackle California's biggest challenges—energy efficiency, transportation, earthquake

preparedness, health care, education, and others on the horizon. Solutions to many of these problems have a common IT feature—they depend on highly-distributed, reliable, and secure information systems that can evolve and adapt to radical changes in their environment, delivering information services that adapt to the people and organizations that need them.

Since its 2001 start-up, the collaboration among four UC campuses (Berkeley, Davis, Merced, and Santa Cruz) involving over 200 faculty members and the state's leading-edge industries, has been exploring the use of vast numbers of miniaturized wireless sensors to make buildings dramatically more energy efficient and reduce carbon emissions annually; to link the state's roadways to computers to analyze traffic flows and point commuters to efficient routes; to monitor buildings and bridges to guide emergency personnel to respond to earthquakes or manmade disasters; and to monitor and guard California's waters, air and environment from Monterrey Bay to urban Southern California. CITRIS has already attracted a new Intel research facility, received $22 million more in federal funds, and spun out one new firm. Even so, the project remains focused on developing innovative solutions to some of the state's most challenging problems.

The Carver-VCU Partnership
[www.vcu.edu/ocp/programs/carvervcu/index.html]

In the mid-1990s, Virginia Commonwealth University (VCU) experienced significant enrollment growth, prompting the institution to look for places to expand. The university's search resulted in an ongoing relationship with the Carver neighborhood—one of Richmond's poorest—and development that has revitalized an area of the city left behind for nearly four decades.

In response to neighborhood concerns about its development desires, VCU formed a Community Advisory Board as a regular forum for identifying and addressing university-neighborhood issues. Additionally, with the aid of a U.S. Department of Housing and Urban Development Grant matched by internal funds, the university and its neighbors launched the Carver-VCU Partnership, a multifaceted initiative to address long-term community concerns in education, health, land use, and economic development. The partnership has brought joint efforts in policing (bringing the university police into the neighborhood, resulting in a 50 percent drop in the area's crime rate), health care delivery (involving the university's medical college), K-12 education (involving university students as volunteers and mentors), and more. These efforts, plus the university's construction of joint-use residential, recreational, arts, and parking facilities in the area have helped to lure major retailers back to the neighborhood.

The partnership continues to face growing pains and challenges, such as questions about the scope and nature of future university development and the demand for affordable housing in the neighborhood, but the strong and broad-

based linkage between VCU and the Carver neighborhood provides a "meeting place" for taking up those issues. At the same time, the partnership provides unique opportunities for both the university and residents of the neighborhood—a true "win-win" for all involved.

Social Inclusion

Foreign Educated Physician MD to RN Program/Florida International University (FIU)
[http://chua2.fiu.edu/nursing/Undergraduate/MD-RN.htm]

Authorized in 1998 and begun in 2002, this program within the School of Nursing at FIU provides foreign-educated physicians unable to be licensed in the United States (because of lost records, time/money required for U.S. licensure, lack of recognition of foreign degrees, etc.) to obtain a Bachelor of Science in Nursing (BSN) and thereby remain in the medical field. The program, likely the first of its kind in the nation, came about as a request from a group of local Cuban physicians, supported by several state legislators and county officials. Funding for the program is supplied by the Hospital Corporation of America (HCA), Mercy Hospital, Kendall Medical Center, and Cedars Medical Center.

The program's requirements are rigorous. Students must have legal immigration status, meet an English proficiency threshold, and follow the same general academic track as other BSN candidates (but have the option of testing out of certain prerequisite courses). Despite the program's rigor, demand is high—there were more than 600 applications for 40 slots in the first cohort.

The program simultaneously addresses two significant regional needs. One is a critical shortage of nurses, which affects the region and the state as a whole. Florida currently posts a vacancy rate of more than 15 percent for registered nursing positions, and faces a need of up to 37,000 additional nurses by 2006. At the same time, the program offers opportunities in the health professions for the region's (and state's) immigrants, many of whom would otherwise be consigned to low-skill, low-wage employment outside the medical field—another example of an innovative "win-win."

Center for Statewide E-Learning (South Dakota)
[http://www.northern.edu/elearning/index.htm]

The Center, established at Northern State University in 2001, is designed to provide teachers and courses in key college prep areas, student teaching/teacher professional development opportunities, and artistic and cultural programming to remote areas of the state using digital video technology. Additionally, the Center incorporates its technology infrastructure into the university's undergraduate and graduate programming.

A hybrid of university and secondary programs and personnel, the Center offers approximately 30 courses in 14 academic subjects daily to more than 600 students (an increase of more than 100 percent in three years) in nearly 40 percent of the state's school districts via a statewide digital video network, at no cost to the school district or the student. Additionally, the Center uses the network to deliver professional development programming to teachers in remote districts, and to link with student teachers placed by the university in those districts, allowing for student teacher placement in schools historically overlooked because of their remoteness. The Center also brings cultural events to rural schools via the network, and partners with international universities in areas such as foreign language delivery to help broaden students' global exposure. Finally, the Center taps its infrastructure to support the university's curricula in a number of areas, including undergraduate and graduate programs in e-learning.

The Center's work brings crucial academic programs and cultural opportunities to communities and regions that have been historically underserved due to geographic remoteness, a shortage of qualified teaching resources, and other factors. This helps to level the "opportunity playing field" between rural and metropolitan areas in a far-flung and sparsely populated state. At the same time, the Center's programming aims to build a stronger teaching pipeline for the state through richer student teaching and teacher professional development opportunities. The Center has received significant support from state and federal funding sources, and has drawn inquiries from institutions in the United States and around the world.

Collaborative Governance

Institute of Portland Metropolitan Studies [www.upa.pdx.edu/IMS/home/homeindex.html]

Located in the College of Urban and Public Affairs at Portland State University (Oregon) and established in 1992, the Institute is a service and research center established to aid the Portland-Vancouver (WA) metropolitan area through:

- Identification of pressing issues facing the region and its communities, especially through data that accurately portray the scope and significance of those issues; and
- Capacity-building and resource development among regional partners to address those issues.

The Institute carries out its mission through a range of projects and services, including:

- Metropolitan Economic Policy Task Force—This group was charged with convening regional stakeholders around the goals of bringing greater

clarity and coordination to regional efforts in sustainable development, identifying opportunities and gaps in those efforts, and exploring linkages and common themes in local, regional, and state strategies. The task force concluded its work in June 2003.

- Regional Roundtables—These conversations include public and private sector and community leaders in an ongoing discussion about issues pertaining to the long-term quality of life in the region in a neutral, independent setting. Issues covered include the economy, transportation, land use, the environment, social needs, and governance. The goals of the roundtables are to probe key issues and place them in a regional context, and to build a shared sense of the region in the process.
- New Economy Observatory—This initiative centers around a strategic overview of metropolitan Portland's economy, providing data on the performance of the region's economy, the nature and formation of new businesses, and the inter-relationships between the region's quality of life and distinctive character.

Through these and other initiatives, the Institute has become a respected resource and convener for the Portland metropolitan region, and has provided significant applied research and partnership opportunities for the university.

Anthony J. Catanese Center for Urban and Environmental Solutions (CUES) [www.catanese.org]

Founded in 1972 at Florida Atlantic University (FAU), the Catanese Center works with policymakers and the general public in pursuit of options for managing growth (in one of the nation's fastest-growing and most environmentally sensitive regions), promoting a strong economy, and planning livable communities. Through its work, the Center connects with state and local government leaders, business and professional groups, and academics.

The Center works with its constituencies through a mix of applied research, academic support, and community outreach, collaborating with several departments at FAU and Florida International University (FIU). Recent and current Center projects include:

- South Florida Regional Resource Center—Administered by CUES, the Center assists with community building and development of inter-neighborhood relationships, collaboration with public and private groups on issues of joint concern, and community design.
- Palm Beach County Redistricting Plan—CUES, working with FAU's Center for Visual Planning Technology (VPT), aided the Palm Beach County Board of Commissioners in developing options for redrawing commission district boundaries to meet criteria established by the Board and standards set forth in the Voting Rights Act. Since 1994, CUES and VPT have teamed up on eight redistricting plans for local jurisdictions.

- Hot Topics for Local Governments—CUES collaborates with FAU's Institute of Government on this ongoing series, designed to bring cutting-edge educational programming to local government officials.

Over the past 30 years, CUES has become a valuable resource to the South Florida localities it serves, as well as a key partner for academic programs in public affairs and planning.

Regional Stewardship Audit

Getting Started—The Stewardship Audit

For many (if not most) campuses and their regional and state partners, seeing the big picture and overall goals is the easy part—plotting a course to get there is considerably more difficult. The audit tool that follows has been designed to jump start that process. The audit provides an opportunity for stakeholders to carefully examine the region, the university (or universities) and the intersection(s) between the two. The resulting information forms a baseline for assessing strengths and weaknesses, opportunities and risks related to regional stewardship. For example, how is the region defined? What are the university's current and potential contributions as a regional steward? What are the institutional and state policy environments surrounding stewardship efforts?

Answers to these and other questions lead to the development of a regional stewardship profile, a summary of "what is" in terms of the university-region connection. From such a profile will flow a regional stewardship roadmap, a concrete outline of where regional partners want and/or need to focus their energies to promote long-term viability and vitality. In essence, the audit and its resulting products (the profile and roadmap) offer the means for universities and regions to "look in the mirror" and identify what in their relationship is good, what needs work, where that work might begin, and how to gauge success.

At first glance, the audit framework may look daunting, requiring information that is not readily available and/or assessments that are difficult to make. It is important to note at the outset that no university-region partnership is expected to have all of the pieces neatly in place—otherwise, there would be no need for a project such as Making Place Matter. However, the better and more complete the information provided through the audit process, the better the ultimate stewardship roadmap. Put simply, partnerships will get out of the audit process what they put into it. Moreover, it is essential for partnerships to keep in mind that the goal is a concrete, substantive plan for deepening relationships and tackling key issues, so careful attention to recurring themes and "soft spots" in the data will help greatly in honing the focus of the plan. Finally, and perhaps most importantly, the audit is a framework, and an experimental one at that. Campus-region collaborations should not be afraid to customize it to reflect their particular needs and interests, and to offer suggestions for its refinement.

A Four-Step Process

The process used by Making Place Matter to bring universities and regions more significantly and systematically into stewardship conversations and initiatives entails four discrete steps. Before progressing to the next step of the process, it is important to have significant consensus (not necessarily unanimity) and clear

understanding among all stakeholders before moving on to the next step. It is also important to note that the process starts with the region, reiterating that university transformation is not the starting point of enhanced regional stewardship, but one of its desired outcomes.

STEP 1: ESTABLISH REGIONAL CONTEXT

The first step sounds deceptively simple and straightforward, but involves more than a recitation of facts and figures, leadership maps, or a list of regional problems. Establishing regional context entails bringing together data/information, stakeholders, and conversations from a wide range of sources and constituencies to create a succinct, compelling snapshot of where the region is—and where it is headed—in key respects. It also means prioritizing regional viability/vitality issues with an eye to the future, and determining where crucial "leverage points" exist with respect to these issues.

Desired endpoint:

At the conclusion of this step, campus and regional stakeholders should be able to briefly express: (a) the essential characteristics of the region; (b) significant trends/projections affecting the region's future; (c) top stewardship priorities (which should be related to the trends/projections); and (d) primary existing/potential resources ("leverage points") for addressing the top priorities.

Breaking it down:

- ***Identify the region, paying particular attention to how the region relates to trends outlined in the project monograph*** (i.e. cultivation of talent, focus on place-based assets, position in The Big Sort, presence of regional stewards). In other words, what does your region look like, and how well does that jibe with prevailing economic and demographic trends?
- ***Identify and order stewardship priorities for the region.*** This is most productively done using the four "conversations" of regional stewardship outlined in the monograph (innovative economy, livable community, collaborative governance, social inclusion). It is important to note that a region's identified priorities can—and likely will—lie at the intersection of two (or more) of these conversations. At this point, it is also extremely important for the enunciated priorities to be specific enough to be manageable, but broad enough for them to significantly affect the direction of the region (a balancing act to be sure!). Finally, stakeholders should understand that priorities that do not reach the top are not "left behind"—this process should be seen as establishing a model for tackling those priorities (perhaps with a different set of stakeholders) down the road.
- ***Identify primary regional resources and capacity, focusing on top stewardship priorities.*** Within the key stewardship areas identified by stakeholders, where is the critical mass of resources (inputs such as people,

funding, technology, legitimacy/authority) and capacity concentrated? Are individuals/groups contributing critical mass currently a part of this process?

Results of the work in this step will form the foundation of a grid that will graphically represent the process, as seen below:

Stewardship Priority #1 ▪ Stewardship Conversations Involved (innovative economy, livable community, collaborative governance, social inclusion) ▪ Relationship to Key Regional Trends/Directions ▪ Regional Resources/Inputs
Stewardship Priority #2 ▪ Stewardship Conversations Involved ▪ Relationship to Key Regional Trends/Directions ▪ Regional Resources/Inputs
Stewardship Priority #3 ▪ Stewardship Conversations Involved ▪ Relationship to Key Regional Trends/Directions ▪ Regional Resources/Inputs

STEP 2: ASSESS UNIVERSITY-SYSTEM-STATE STEWARDSHIP RESOURCES AND CAPACITY

Once the region's primary characteristics and stewardship priorities have been framed, the next step is to move critical focus to the university and its fiscal/regulatory partners (system and state) and their interplay with top regional stewardship priorities. Specifically, this assessment focuses on the resources and capacity that the institution currently brings to bear on the priority areas identified in Step 1, as well as the depth and frequency of university involvement in those areas. This examination should be applied to several core functions of the university, including: mission/vision/planning, incentives/rewards, learning environment, research/innovation, and community leadership/activity.

Equally as important, this assessment should also include a critical look at the policy/practice environments established by the institution, system, and state that affect interactions with regional stakeholders and partners.

Desired endpoint:

At the conclusion of this step, the university and its partners (regional as well as system/state) should have a concise working summary of the campus's strong

points and “soft spots” in the relationship between their core activities and top regional stewardship priorities.

Breaking it down:

- ***Identify university resources and capacity currently applied to top stewardship priorities.*** In other words, where is the university “plugging in” or not “plugging in” to critical regional challenges and opportunities through its core activities? Where the campus is “plugging in,” how significant and sustained is its connection to these priorities? Focusing on these questions should yield a clear sense of where campus leverage is being concentrated, as well as where it is conspicuously absent.
- ***Assess the policy/practice environments (campus-system-state) surrounding the institution’s regional application of resources and capacity.*** This involves taking a careful look at the rules, regulations, funding mechanisms, and ways of doing business that can significantly help—or hinder—a more intentional, ongoing university involvement in key stewardship priorities. Significant items that surface through this process should be woven into the assessment of current resources and capacity. The following sets of questions may be helpful in gauging the policy/practice environment:

For Institutions:
Orientation—What role does regional stewardship play in the institution’s articulation of its mission? Does the institution provide a stewardship framework for the campus community?
Planning/Evaluation—What role does the region play in institutional roadmaps, goals, and objectives? Do place-related goals and objectives reach across the campus?
Resource Allocation—How much does the institution allocate (physical, human, financial) to regional stewardship? How flexible, partnership-friendly are resource allocation policies?
External Relations—Does the institution maintain regular, ongoing contact with its regional stakeholders? Is the institution approachable from a regional standpoint?

For Systems/States:
Public Agenda—Is there a public acknowledgement of the value/priority of regional stewardship among policymakers?
Finance—Do resource allocation structures and mechanisms largely emphasize or ignore regional stewardship priorities?
State Government Relationships—Does communication with state leaders occur in a one-dimensional, “stovepipe” fashion, or is it broad and coordinated?
Regulation—Do regulatory structures and policies largely promote or frustrate the formation and maintenance of regional partnerships?
Accountability—Do measurement and reporting systems adequately reflect stewardship activities, or reflect them at all?

Adding this step to the grid will result in the following:

INSTITUTION → **REGION ↓**	**Mission/ Planning/ Vision**	**Incentives/ Rewards**	**Learning Environment**	**Research/ Innovation**	**Community Leadership/ Activity**
Stewardship Priority #1 ▪ Conversations Involved ▪ Relationship to Key Regional Directions ▪ Regional Resources/ Inputs	Current R/C/E	Current R/C/E	Current R/C/E	Current R/C/E	Current R/C/E
Stewardship Priority #2 ▪ Conversations Involved ▪ Relationship to Key Regional Directions ▪ Regional Resources/ Inputs	Current R/C/E	Current R/C/E	Current R/C/E	Current R/C/E	Current R/C/E

NOTE: R/C/E = Resources/Capacity/Environment

STEP 3: DEVELOP GOALS AND SUCCESS MEASURES

Building on the work of Step 2, this part of the process involves the identification of prime areas for strengthening and sustaining university participation in stewardship priority areas, and the development of indicators that measure both the advancement of regional priorities and the contributions of the campus to that advancement. In other words, it moves the conversation from "what is" to "what is desired" and requires yardsticks for measuring that movement. The benchmarks set here will form the basis for subsequent reviews of progress made and lingering obstacles for regions and their university partners.

Desired endpoints:

At the conclusion of this step, regional and university stakeholders should have a clear summary of focus areas for broadening and sustaining the institution's contributions to top stewardship priorities, including required changes in

environmental factors. Additionally, specific, relevant, and measurable success indicators should also be adopted for each focus area.

Breaking it down:

- ***Identify target areas for institutionalization of top stewardship priorities.*** A candid assessment of where the university is (or is not) in terms of regional priorities should point the way toward places where more significant and sustained university activity is needed and desired. It is important to note that this may (and in some cases must) include overcoming barriers or capitalizing on opportunities in the policy/practice environments. As with regional stewardship challenges and opportunities, some measure of prioritization will be in order. This should be done with an eye toward the most pressing stewardship priorities and aspects of those priorities that the university is uniquely situated to address.
- ***Establish success measures for the selected focus areas.*** Institutionalization of regional stewardship priorities depends in large measure on the ability to demonstrate positive outcomes or return on investment. Success in terms of regional outcomes could be measured in terms of products and services (e.g. increase in affordable housing stock) and/or social outcomes (e.g. reduction in crime/homelessness rates, increase in per capita income among specific groups). Success from a university standpoint could be measured in terms of products (e.g. patents issued from local applied research collaborations, community members served through a joint housing initiative) or processes (e.g. percentage of students and faculty actively/regularly participating in curricular/co-curricular projects related to regional priorities).

Adding goals and success measures rounds out the grid for the stewardship audit, which follows:

INST. → REGION↓	Mission/Planning/ Vision			Incentives/ Rewards			Learning Environment			Research/ Innovation			Community Activity/Leadership		
Regional Stewardship Priority 1 ▪ **Conv.** ▪ **Rel. to Direction** ▪ **Res./ Inputs**	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success
Regional Stewardship Priority 2 ▪ **Conv.** ▪ **Rel. to Direction** ▪ **Res./ Inputs**	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success
Regional Stewardship Priority 3 ▪ **Conv.** ▪ **Rel. to Direction** ▪ **Res./ Inputs**	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success	Current R/C/E	Desired R/C/E	Success

NOTE: R/C/E = Resources/Capacity/Environment

STEP 4: DEVELOP A STEWARDSHIP ROADMAP

The final step in the process focuses on the mechanics of getting from "what is" to "what is desired." Specifically, university and regional stakeholders are asked to identify specific actions, actors, and timetables for meeting success targets in the priority areas. The "roadmap" that results will answer the questions of how do we get from here to there, involving whom, and by when?

Desired endpoint:

At the conclusion of this phase, the stakeholder group (including regional, institutional, system/state stakeholders) should have a concrete, specific plan ("the roadmap") that covenants each to actions toward the identified goals and success measures. This plan will be used as a baseline for follow-up, the site's case study, and demonstration of value added to the project's funder.

What Next?

While identifying regional stewardship priorities, institutional capacity for helping to address those priorities, and plotting strategy for bringing the two pieces together are in and of themselves daunting tasks, they represent merely a beginning—a beginning of what hopefully will become a new way of looking at the world and doing business. To be truly useful, the insights gained and vetted through this process must be translated into action, steps great and small that will bring colleges and universities into closer, more integrated relationships with their surrounding regions. That is the hardest—and most important—and it must be woven into the demands of daily life for campus and regional stakeholders. That is why regional stewardship must be seen as an orientation, not as an activity or stand-alone project.

Universities and regions are not alone in these efforts, however. The emergence of the regional stewardship movement and the increased focus on stewardship of place among institutions and even states are creating a growing cadre of mentors to help aspiring campuses and regions navigate what for many leaders is terra incognita. The groups that support universities and their local partners—including those leading this project—play an important role in connecting mentors and protégés and providing resources to both.

The tools offered here represent just one approach to addressing the world that is rapidly changing around public higher education. Whatever approach campuses employ to connect with that world, its governing principle must be relevance to the publics they serve. Failing that will leave the future of the "people's universities" very much in doubt.